

## The Top 10 Drugs -- 1997

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Chiropractors are typically insulated from the highly competitive world of the pharmacy industry. As a profession, we do not participate in the writing of the many millions of prescriptions filled annually in the U.S. It is remarkable to realize that the top 10 drugs are credited with 272,977,000 purchases (1997).<sup>1</sup>

In the automotive industry, there are several broad classifications: sports utility vehicles, compact, mid-size, etc. Ford, GM, and Toyota all have their vehicles for each category. The numerous manufacturers, with copious advertisements, work hard for your attention and hopeful purchase. The same frame of reference exists in the pharmaceutical industry. The classifications of drugs include antibiotics, antidepressants, antihypertensives, cholesterol-lowering agents, analgesics, etc. The various manufacturers all have their product(s) in these categories. Competition is fierce. Marketing programs are varied and well funded. Full page advertisements are found in essentially every medical journal. Drug company representatives visit medical offices routinely to drop off samples, literature, and dinner invitations. Speakers are paid to lecture at hospital education sessions. Also, there are expanding efforts in advertising directly to the public.

Like the auto makers, the drug companies track product sales (their own and competing products). These data are instrumental in planning future marketing programs.

The following list of the top 10 drugs are for combined new and refill prescriptions. This listing includes eight drug classes and is an indication of the broad drug market as many of the top 200 drugs are simply a product that is competing with these top 10. Learning about these drugs will give you an insight into a large percentage of all drug sales and acquaint you with what the consuming American public is purchasing.

Additionally, the list of top 10 drugs for "new prescriptions" is found below. This list is largely germane to acute illness whereas the "total prescription" list relates to both acute and chronic illness.

Product (total prescriptions)	Drug class	Manufacturer 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.
Trimox	antibiotic	Apothecon
Hydrocodone/APAP	analgesic	Watson
Zithromax	antibiotic	Pfizer Labs
Augmentin	antibiotic	SK Beecham
Biaxin	antibiotic	Abbott
Premarin Tabs	estrogen replacement	Wyeth-Ayerst
Amoxil	antibiotic	SK Beecham
Cephalexin	antibiotic	Teva Pharm
Trimethoprim/Sulfa	antibiotic	Teva Pharm
Synthroid	thyroid replacement	Knoll

The number one drug in total prescriptions and 7 out of 10 in the new prescription list belongs to the antibiotic class of drugs. This class represents 12-14% of all prescribed drugs<sup>1</sup>. Use among children younger than 15 years was approximately three times as high as in any other age group.<sup>2</sup>

Widespread use of antibiotics persist in spite of objections to the practice,<sup>3</sup> the well demonstrated lack of efficacy,<sup>4,5,6</sup> and growing concerns about bacterial resistance to antibiotics.<sup>7,8</sup> This remarkable use and abuse of antibiotics is out of step with the science of our day. Reasons speculated for this are found in a profound letter to the editors of the journal Lancet:<sup>9</sup>

1. Erroneous physician beliefs.
2. Patient demands for antibiotics.
3. Pressure on physicians to limit appointment times.
4. The prescription is the path of least resistance.

#### Premarin Tabs

Premarin has become almost synonymous with "estrogen replacement therapy" or "ERT." ERT is recommended almost universally to women at the perimenopause or postmenopausal time. The three reasons given for this widespread use of ERT are: relief of perimenopausal symptoms (hot flashes, night sweats, etc.); protection against osteoporosis; and protection against cardiovascular disease.

The manufacturers of Premarin, Wyeth-Ayerst, have begun marketing another estrogen hormone drug, Prempro. Unlike Premarin, Prempro contains both an estrogen fraction and a progestin (synthetic progesterone) fraction. Prempro was the #22 drug on the total prescription list in 1997.<sup>1</sup> Combining the sales of Premarin and Prempro would overtake Trimox as the #1 drug.

The major objection to ERT is the association with an increase in the risk of breast cancer. This issue has been clouded by controversy. However, the study with the greatest weight of evidence, the Nurses' Health Study,<sup>10</sup> is difficult to ignore. The risks of breast cancer for those using ERT for five or more years were 32-71% greater than for women who had never used hormone replacement therapy.

Only recently have other risks associated with ERT come to light. These include: systemic lupus erythematosus;<sup>11</sup> thromboembolic events;<sup>12-14</sup> and fatal ovarian cancer.<sup>15</sup> These three risks associated with ERT have received far less attention than the issue of breast cancer.

### Synthroid

Synthroid is similar in chemical composition to L-thyroxine (or T4) as is produced and secreted by the thyroid gland. Synthroid is used as thyroid hormone replacement therapy for anyone with decreased thyroid function. Thyroid levels need to be monitored via lab tests and dosage needs tend to decrease with age.

A recent study performed at the University of California at San Francisco found no advantage to the use of Synthroid when compared to less expensive generic drugs. Unfortunately, the manufacturer of Synthroid, Knoll, used some strong arm tactics to suppress the publication of this research.<sup>16</sup>

### Hydrocodone/APAP

This drug is a narcotic analgesic with acetaminophen (the active ingredient in Tylenol). Hydrocodone/APAP, along with nonsteroidal antiinflammatory drugs, is a first line medical therapy for musculoskeletal conditions that cause pain. Common side effects include: constipation; light-headedness; dizziness; drowsiness; stomach upset; and nausea, or flushing. These side effects are more attributable to the narcotic rather than the acetaminophen.

### Prozac

Prozac is an antidepressant drug whose action is to inhibit the uptake of serotonin in the central nervous system. The two most common reasons for prescribing these selective serotonin reuptake inhibitors (SSRIs) are depression and obsessive-compulsive disorder. Numerous adverse reactions to these drugs have been reported. These include: anxiety; nervousness; insomnia; drowsiness; fatigue; tremors; GI complaints; dizziness; and increased appetite.

### Lanoxin

Lanoxin is a digitalis preparation, originally extracted from the foxglove plant. It contains cardiac glycosides that act to increase the force and velocity of the heart muscle's contractions. Digitalis compounds are used to treat congestive heart failure and/or arrhythmias and are commonly prescribed with other drugs such as diuretics.

### Prilosec

Prilosec was the first proton pump inhibitor. The pump inhibitors are regarded as more effective than the older histamine H2 receptor antagonist; a class of drugs whose action is to depress the production of the stomach's production of hydrochloric acid (e.g., Zantac, Tagament). Prilosec is used to treat heartburn, gastric ulcer and duodenal ulcer. Prolonged use of this class of drugs has been shown to induce liver damage.

## Vasotec

Vasotec is the most prescribed member of the angiotensin converting enzyme (ACE) inhibitors. Conversion of angiotensin I to angiotensin II is one of the regulatory mechanisms for blood pressure. Vasotec is prescribed for people with hypertension and/or congestive heart failure. Patients taking this drug must be monitored for adverse effects to the white blood cell count and for proteinuria. It can also induce birth defects, liver failure and kidney dysfunction.

## Norvasc

Norvasc is a calcium channel blocker that is prescribed for the treatment of hypertension and angina. Norvasc has been heavily marketed to replace an older calcium channel blocker, Procardia XL. Procardia XL, formerly among the top 10 drugs, received numerous bad press reports. Time will tell if the same negative findings attributed to Procardia XL will be true of Norvasc.

The top 10 drugs of 1997 (new and refills) represents more than 270,000,000 prescriptions filled in the United States and expenditures of over \$73 billion.<sup>18</sup> (This does not include the over-the-counter market.) The total spent on chiropractic care (1993) was \$14 billion.<sup>19</sup> The above costs do not factor in iatrogenic hospitalizations, morbidity, or mortality. The estimated annual expense directly attributable to drug reactions is \$76.6 billion (1992).<sup>18</sup>

The pharmaceutical industry accounts for enormous health care expenses. Far too many of their products are overhyped, overpriced, and overused.

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